

ATC-300+

Power Series Transfer Switch

Automatic Transfer Switch Open and Delayed Transition Controller



Automatic Transfer Switch, Open and Delayed Transition Controller
Available to 600VAC switches

50/60 Hz

Single & Three phase

UL recognized component

CODES AND STANDARDS:



UL recognized component, complies with UL1008 and UL 991



NFPA 70, 99, 110, 37 (complies)



Applicable for use in NEC 700, 701, 702, 708



ISO9001, 8528, 3046, 7637, Pluses #2b, 4



ANSI C62.41



Seismic IBC 2009, CBC 2010, IBC 2012, ASCE 7-05, ASCE 7-10, ICC-ES AC-156 (2012) Certified in ATS assemblies



IEC 61000-4-2, 3, 4, 5, 6, 11 EMC Testing & Measuring (complies)



FCC Part 15, Class A (complies)

CISPR 11, Class A

DESCRIPTION:

The ATC-300+ microprocessor-based ATS controller is unmatched in performance, reliability and functionality for critical operating, emergency, legally required and optional power systems. The easy to use front LCD display panel simplifies programming, routine operation, data presentation, and setting adjustments. The mimic diagrams displays source availability and connection, providing “at a glance” indication, further simplifying users interface. Designed beyond industry EMC standards, the ATC-300+ is rock-solid for transfer control operations, monitoring and reporting.

Customer/factory established parameters are stored in non-volatile memory. The controller has field-programmable time delays, plus displays real-time and historical information with a time-stamped history log. System testing is performed via a front screen test pushbutton. Features also include programmable plant exerciser—OFF, daily, 7, 14, 28-day interval programmable run times. With the standard features of pretransfer contacts, 3 phase sensing on utility and generator source, phase unbalance, phase reversal, load shed/emergency inhibit, and communications (Modbus® RTU) the ATC-300+ is the industry benchmark for transfer switch controllers. The ATC-300+ complies with UL 1008 / CSA C22.2-178.

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STANDARD FEATURES:

The ATC-300+ monitors the condition of the 3-phase line-to-line voltage and frequency of both the utility and generator power sources. It also provides the necessary intelligence to ensure that the transfer switch operates properly through a series of programmed sensing and timing functions.

- Monitors both voltage and frequency on utility and generator
- Provides undervoltage and overvoltage protection of the utility and generator power sources
- Provides underfrequency and overfrequency protection of the utility generator power source
- Permits easy customer set up
- Displays real-time and historical information
- Permits system testing
- Stores customer/factory established parameters in nonvolatile memory
- Provides faceplate source status indications

FRONT PANEL DESCRIPTION:

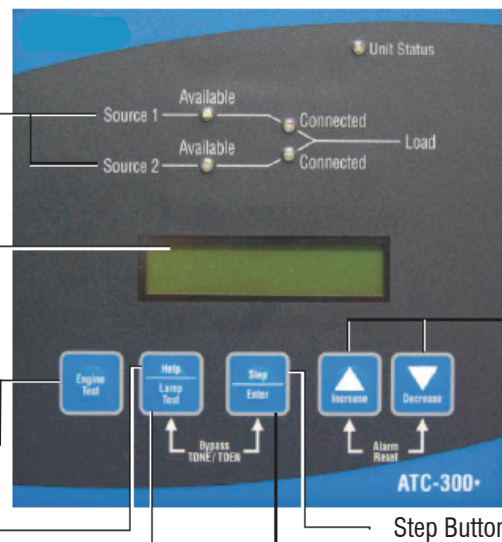
A 2-line, 32-character alphanumeric LCD Display provides a readout on all ATC-300+ controller monitored parameters, setpoints, and messages in easy to read formats (English, French). The display has a green high contrast background that allows clear visibility of any information displayed. The display is continuously lit for clear visibility under poorly lit or no light conditions.

Source 1, Source 2, and Load Colored LED lights show status of both Sources and Load.

LED Display
Unit will provide LED readout showing actual metered values for Voltage, Frequency, and Condition (including Normal, Undervoltage, Overvoltage, etc.)

Engine Test Button
Initiates engine test.

Help
Brings up display messages, explanations, and prompts.



INPUT FUNCTIONS:

- Help/Lamp Test
- Engine Test
- Step/Enter
- Increase
- Decrease
- Alarm Reset
- Bypass Time Delay

OUTPUT FUNCTIONS:

- Unit Status
- Utility Available
- Utility Connected
- Generator Available
- Generator Connected

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SPECIFICATIONS:

System Application Voltage	Up to 600 VAC RMS	50/60 Hz
Input Control Voltage	65 to 145 VAC	50/60 Hz
Voltage Measurements of	Utility VAB Utility VBC Utility VCA	Generator VAB Generator VBC Generator VCA
Voltage Measurement Range	0 to 790 VAC RMS	50/60 Hz
Voltage Measurement Accuracy	± 1% of Full Scale	
Frequency Measurements of	Utility and Generator (Source 1 and Source 2)	
Frequency Measurement Range	40 Hz to 70 Hz	
Frequency Measurement Accuracy	± 0.3 Hz Over the Measurement Range	
Operating Temperature Range	-20 to +70°C (-4 to +158°F)	
Storage Temperature Range	-30 to +85°C (-22 to +185°F)	
Operating Humidity	0 to 95% Relative Humidity (Non-condensing)	
Operating Environment	Resistant to Ammonia, Methane, Nitrogen, Hydrogen, and Hydrocarbons	
Generator Start Relay	5 A, 1/6 HP @ 250 VAC 5 A @ 30 VDC with a 150 W Maximum Load	
K1, K2 Relays	10 A, 1-3 HP @ 250 VAC 10 A @ 30 VDC	

PROGRAMMABLE SETPOINTS:

Undervoltage Dropout Range	Breaker/Switch Style ATS Contactor Style ATS	50% to 97% of the Nominal System Voltage 78% to 97% of the Nominal System Voltage
Undervoltage Pickup Range	Breaker/Switch Style ATS Contactor Style ATS	(Dropout +2%) to 99% of the Nominal System Voltage (Dropout +2%) to 99% of the Nominal System Voltage
Overvoltage Dropout Range	Breaker/Switch Style ATS Contactor Style ATS	105% to 120% of the Nominal System Voltage 105% to 110% of the Nominal System Voltage
Overvoltage Pickup Range	Breaker/Switch Style ATS Contactor Style ATS	103% to (Dropout -2%) of the Nominal System Voltage 103% to (Dropout -2%) of the Nominal System Voltage
Underfrequency Dropout Range	Breaker/Switch Style ATS Contactor Style ATS	90% to 97% of the Nominal System Frequency 90% to 97% of the Nominal System Frequency
Underfrequency Pickup Range	Breaker/Switch Style ATS Contactor Style ATS	(Dropout +1Hz) to 99% of the Nominal System Frequency (Dropout +1Hz) to 99% of the Nominal System Frequency
Overfrequency Dropout Range	Breaker/Switch Style ATS Contactor Style ATS	103% to 110% of the Nominal System Frequency 103% to 105% of the Nominal System Frequency
Overfrequency Pickup Range	Breaker/Switch Style ATS Contactor Style ATS	101% to (Dropout -1Hz) of the Nominal System Frequency 101% to (Dropout -1Hz) of the Nominal System Frequency

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ADDITIONAL PROGRAMMING SETTINGS

Time Delay Nml to Emr	0 to 1800 seconds
Time Delay Emr to Nml	0 to 1800 seconds
Time Delay Engine Cool	0 to 1800 seconds
Time Delay Engine Start	0 to 120 seconds
Time Delay Neutral ¹	0 to 120 seconds
Time Delay Source 2 Fail	0 to 6 seconds
Time Delay Volt Unbal	10 to 30 seconds
Volt Unbal 3-Phase	0 or 1 (1 = Enable)
% of Unbal Volt Dropout	5% to 20% (DO) Dropout -2% to 3% (PU)
Nominal Voltage	120 to 600 Volts
Nominal Frequency	50 or 60Hz
Baud Rate	9600 or 19,200
Phase Reversal 3-Phase	OFF, ABC, or CBA
In-Phase ²	0 or 1 (1 = Enable)
Pre-Transfer Signal	1 to 120 seconds
Manual/Retransfer	0 or 1 (1 = Enable)
Plant Exerciser	Off, Daily, 7-Day, 14-Day, 28-Day Intervals 0 to 600 minutes Load or No Load
Daylight Svgs Time Adj	0 or 1 (1 = Enable)
System Selection	Utility/Generator or Dual Utility
Modbus Address	1 to 247
Communications	Modbus RTU® Ethernet and/or Remote Annunciator (Optional)
Applicable Testing	UL Recognized Component UL 1008, UL 991 Environmental IEC 61000-4-2, 61000-4-3, 61000-4-4, 61000-4-5, 61000-4-6, 61000-4-11 CISPR 11, Class A FCC Part 15, Class A
Enclosure Compatibility	NEMA 1, NEMA 3R, NEMA 4X, and 12 UV Resistant ATC-300+ Faceplate

1. Not available on open transition with inphase only switches

2. Not available on molded case type switches